

WHAT IS CLAIMED IS:

1. A driving circuit for an electro-optical device that performs image display by driving a plurality of pixels formed in a matrix on a substrate according to an analog image signal, the driving circuit comprising:

5 an A/D conversion circuit that converts said analog image signal into a digital signal;

a storage device that stores said digital signal; and

10 a D/A conversion circuit that converts a digital signal, which is stored in said storage device, into an analog signal and that supplies said analog signal to said pixels.

2. The driving circuit for an electro-optical device according to claim 1, further comprising a plurality of sampling circuits provided on said substrate, that sequentially sample and hold said analog image signal inputted in one horizontal scanning period,

15 said A/D conversion circuit comprising a plurality of A/D converters that convert analog image signals held in said plurality of sampling circuits into digital signals,

20 said storage device storing a plurality of digital signals obtained from said plurality of A/D converters, and

25 said D/A conversion circuit comprising a plurality of D/A converters that convert a plurality of digital signals stored in said storage device into analog signals and that supply the analog signals to a plurality of pixels.

3. The driving circuit for an electro-optical device according to claim 2, said plurality of A/D converters and said storage device are adapted so that said plurality of A/D converters convert analog image signals held in said plurality of sampling circuits into digital signals within a time which is shorter than said one horizontal scanning period, since the analog image signals are held therein, and that said storage device stores the digital signals.

4. The driving circuit for an electro-optical device according to claim 1, 30 said storage device storing a plurality of digital signals obtained from said A/D conversion circuit within a fixed period,

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1 said D/A conversion circuit comprising a plurality of D/A converters that convert a plurality of digital signals stored in said storage device into analog signals and that supply the analog signals to a plurality of pixels.

5. The driving circuit for an electro-optical device according to claim 4, further comprising a path that supplies a digital signal obtained from said A/D conversion circuit to said storage device, and a path that supplies a digital signal received from an external circuit to said storage device.

10. The driving circuit for an electro-optical device according to claim 1, said D/A conversion circuit comprising a D/A converter that generates an analog signal obtained by performing nonlinear conversion on an analog signal corresponding to a digital signal stored in said storage device, from said digital signal.

7. The driving circuit for an electro-optical device according to claim 1, further comprising thin film transistors on said substrate.

15. An electro-optical device comprising the driving circuit for an electro-optical device according to claim 1.

9. Electronic equipment using the electro-optical device according to claim 8 as a display device.

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